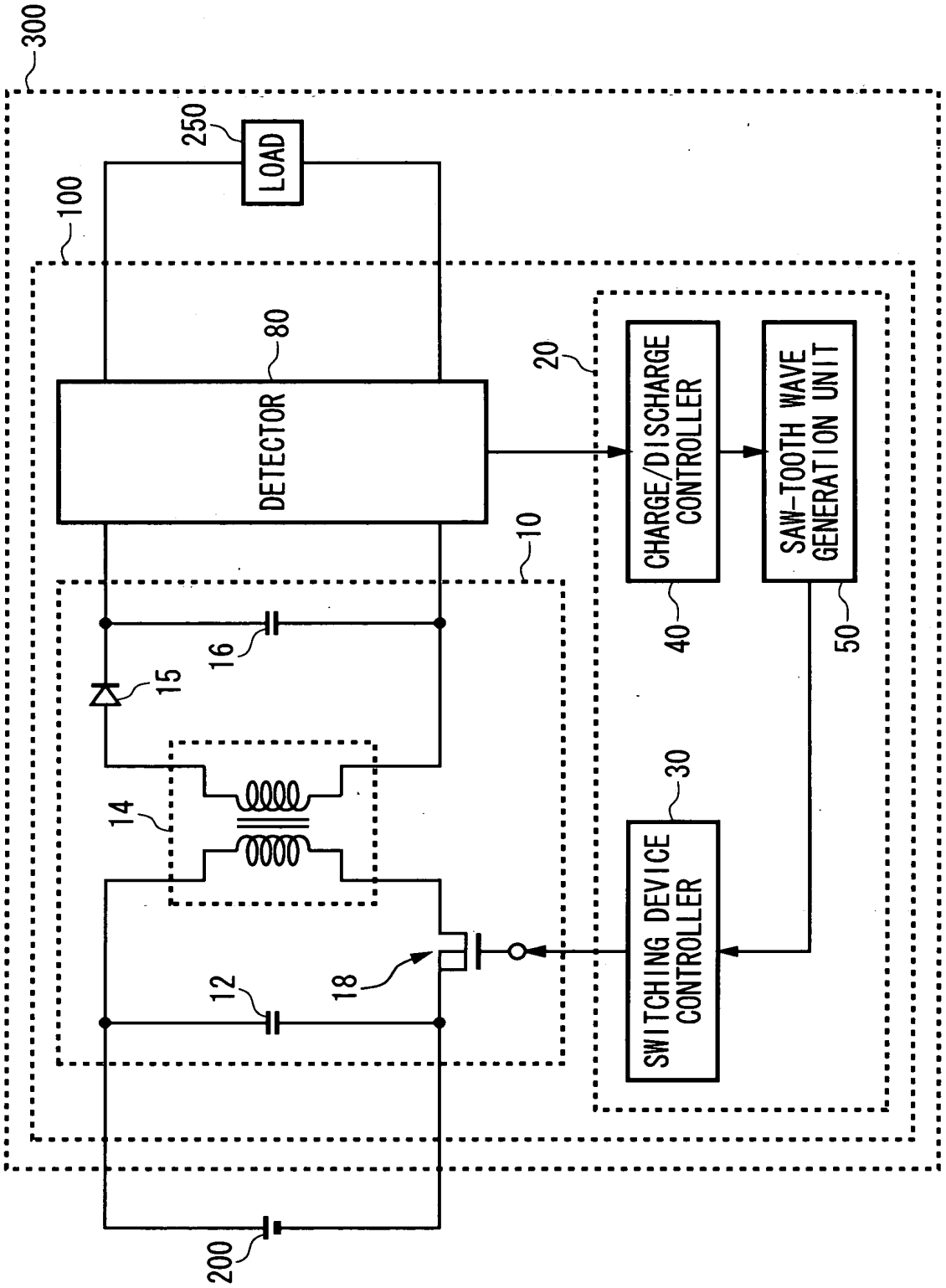
300
250
LOAD
100
80
DETECTOR
20
CHARGE/DISCHARGE CONTROLLER
SAW-TOOTH WAVE GENERATION UNIT
10
16
15
14
40
50
30
SWITCHING DEVICE CONTROLLER
12
18
200

FIG. 1

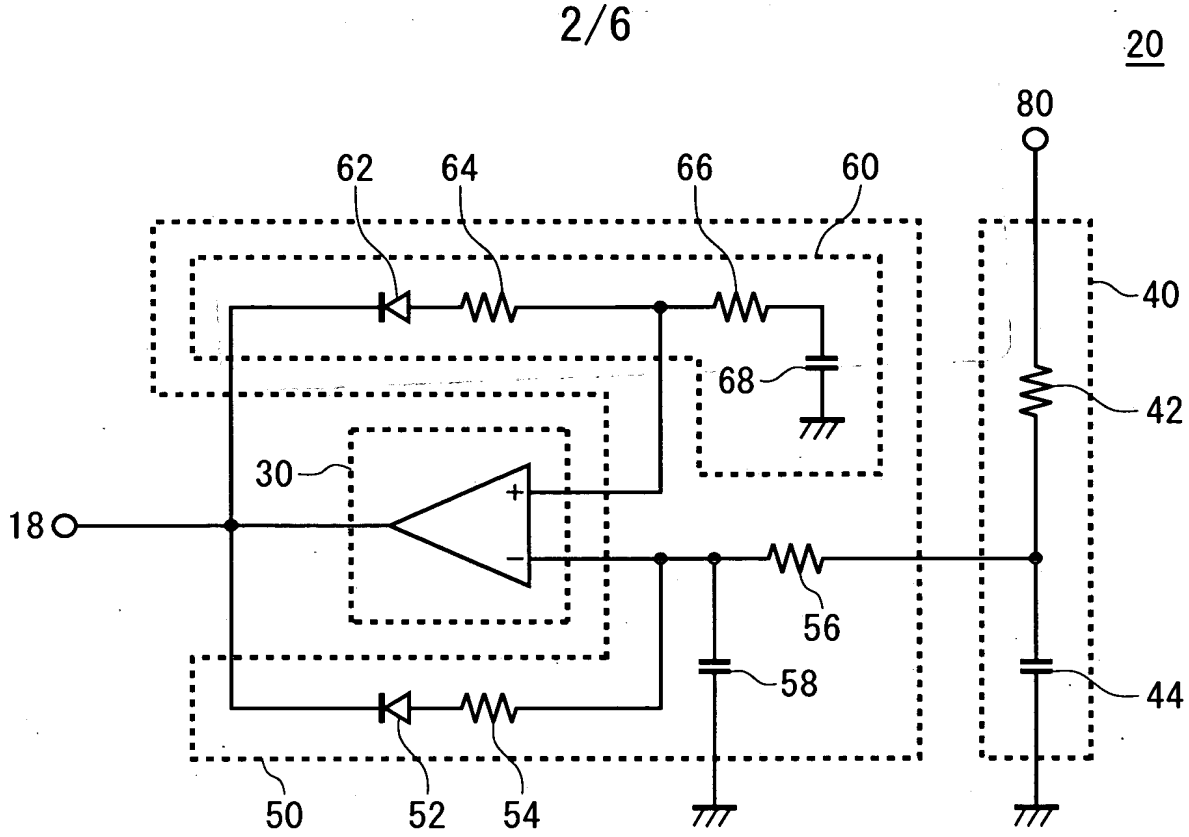
20
80
62
64
66
60
40
68
42
30
18
56
58
44
50
52
54

FIG. 2A

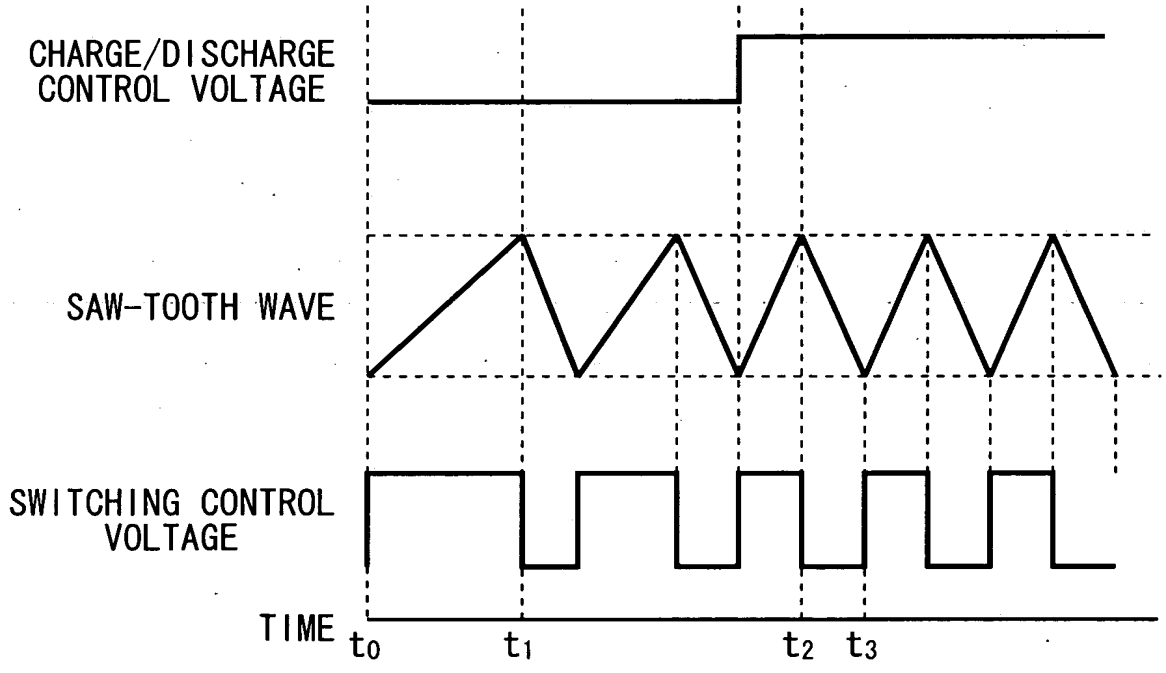
CHARGE/DISCHARGE CONTROL VOLTAGE
SAW-TOOTH WAVE
SWITCHING CONTROL VOLTAGE
TIME
t0
t1
t2
t3

FIG. 2B

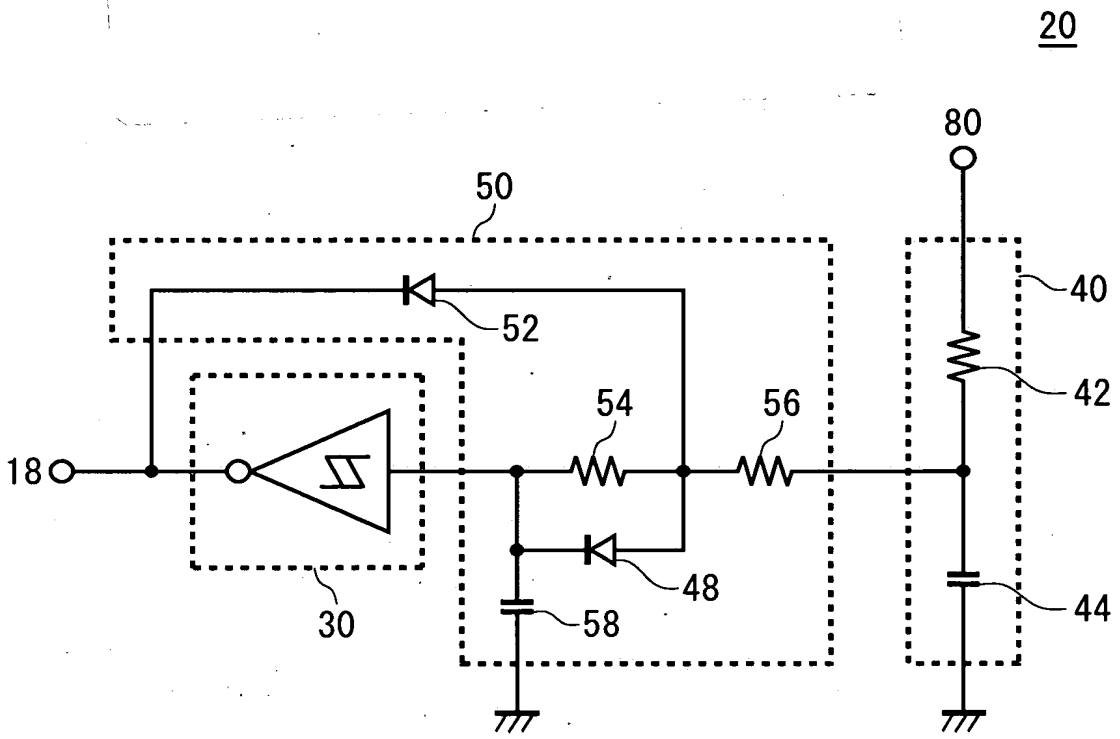

FIG. 3

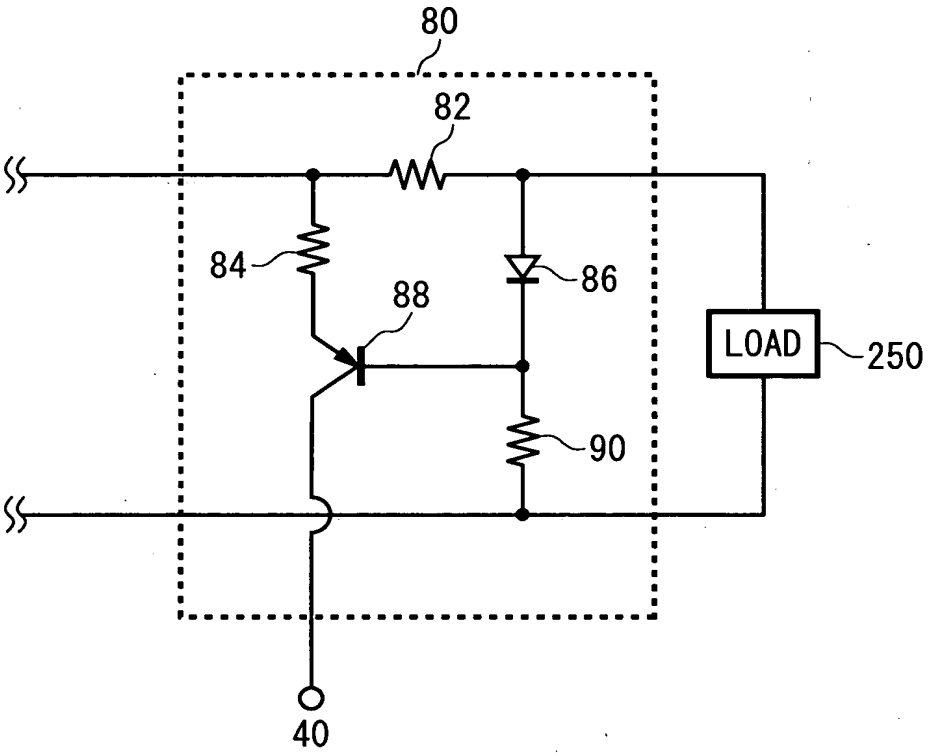

FIG. 4A

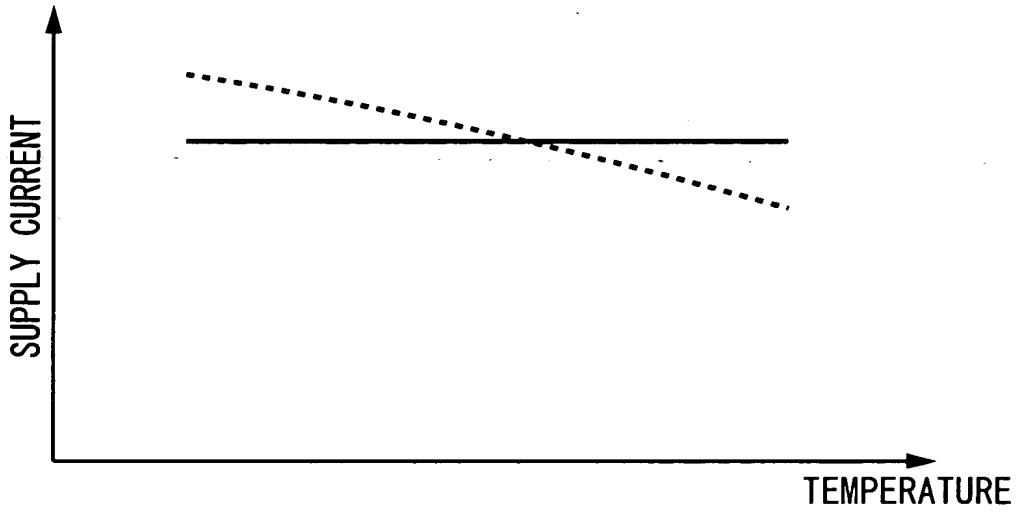

FIG. 4B

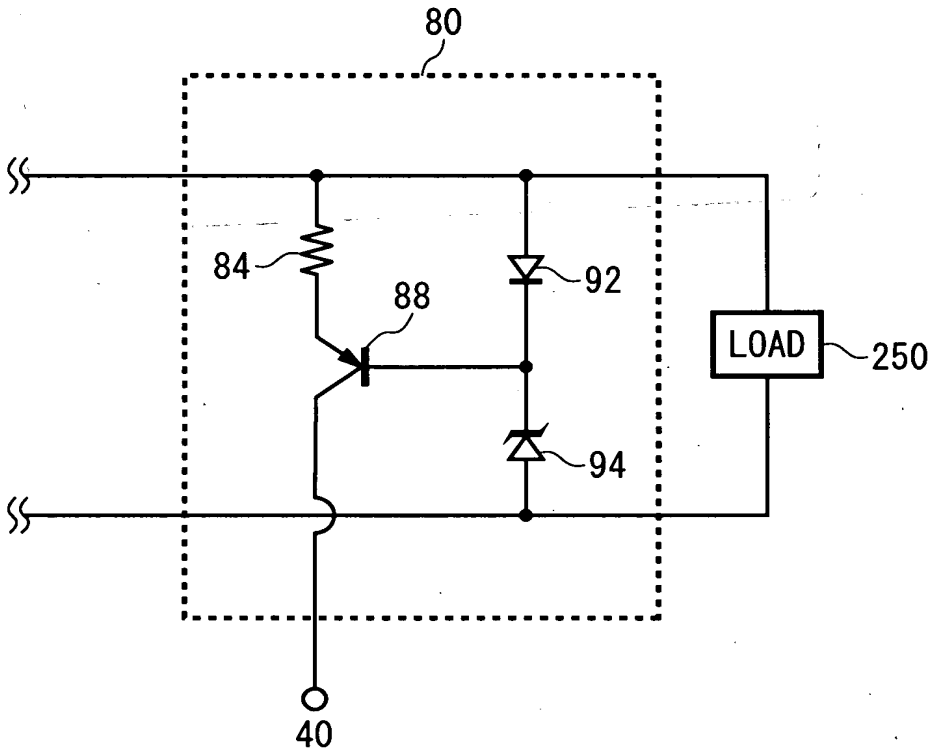

FIG. 5

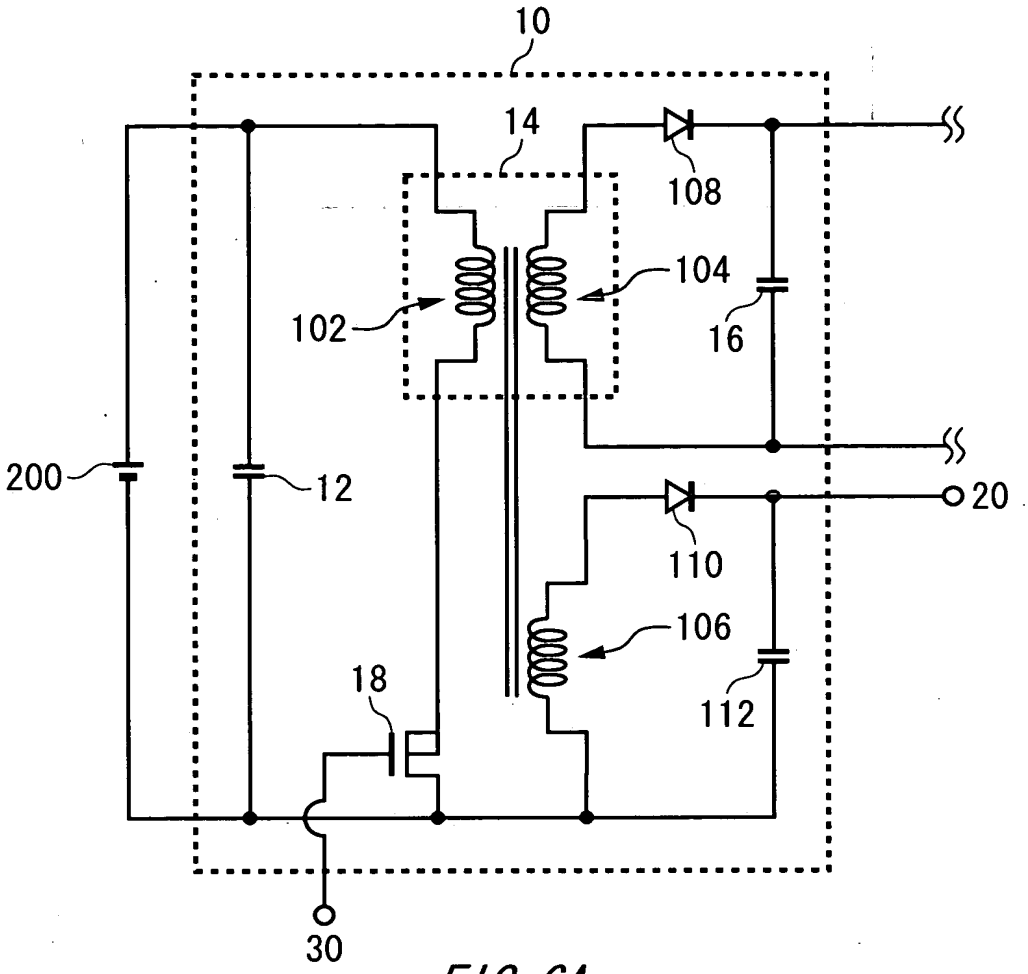
10
14
108
104
102
16
200
12
20
110
106
18
112
30

FIG. 6A

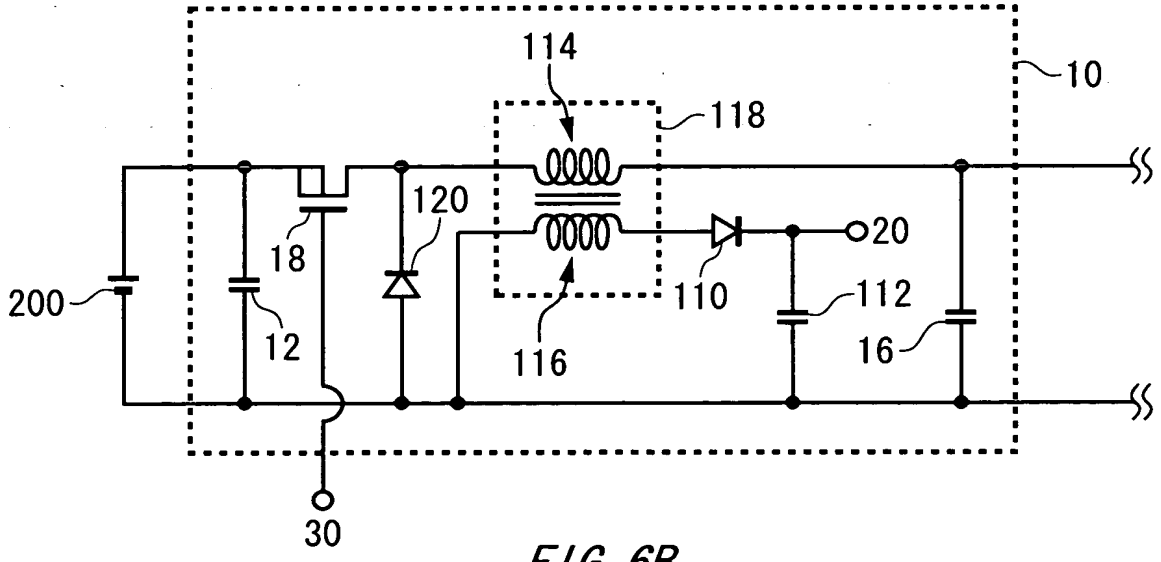
114
10
118
120
18
20
200
110
112
12
16
116
30

FIG. 6B